NATURAL NEWS

The Field Museum
Exploring
The Earth And Its
People

March 29, 1996

THE CELTS HAVE THEIR DAY AT THE FIELD

On March 9 the Education Department celebrated an early St. Patrick's Day as part of its March theme -- *Around the World at The Field Museum.* **Lanet Jarrett** brought out Celtic objects, including a wonderful gold lunulae (necklace) which are part of our anthropology collection. **Tom Lammers** (Botany) helped visitors learn about the true origins of the potato in his display, "Irish Potato -- Not!" Bagpipers from the University of Chicago Pipe Band caught the attention of all Museum visitors when they performed in Stanley Field Hall. Education volunteers **Laura Dunlap, Betsy Baldoni** and **Carol Kacin** helped children "etch" Celtic designs onto aluminum foil lunettes or shields.

Around the World at The Field Museum continues on March 30 with "A World of Animals." **Bill Stanley** (Mammals) and **John Bates** (Birds) will have some specimens from the collections for visitors to see. More importantly they will show who really does the behind-the-scenes work: the dermestid beetle colony will be brought down for a demonstration in Stanley Field Hall. A mime performance, "Wildlife," and activities and demonstrations by Education volunteers will lure visitors into our exhibit halls to explore the Animal Kingdom.

CENTER FOR EVOLUTIONARY AND ENVIRONMENTAL BIOLOGY

FLYNN AND COLLEAGUES RETURN FROM CHILEAN EXPEDITION

John Flynn (Geology) and **André Wyss** (Research Associate, Geology) and University of California-Santa Barbara recently returned from the final field season of their current three-year National Science Foundation-supported project in the Chilean Andes. This project is a collaboration with Reynaldo Charrier, Vice-Dean, University of Chile and the National Museum of Chile. As in the past six years of this project, the team had great success, discovering two new fossil fields and collecting more than 100 well-preserved fossil mammal skulls, jaws and teeth. The fossils are preserved in an unusual setting and matrix -- extremely hard volcanic rock, which probably formed as rains or snow-melt saturated the debris from eruptions sitting on the flanks of volcanoes. The resulting mud- and debris-slides moved rapidly downhill covering the landscape for many miles and engulfing everything in their path. The new collecting areas seem to preserve fossils from at least three age horizons, yielding a total of at least six different time intervals (spanning 20-40 million years) that are now producing fossils from the central Chilean Andes. When the project began there were no fossils known of this age in South America. Although the hardness of the rock makes preparation extremely slow and difficult, preparator **Andrew Leman** (Geology) is making progress in removing the encasing rock from a small, complete polydolopid marsupial skull, an animal group previously known only from isolated teeth and jaws. Fossil finds include many small animals (other marsupials from groups not encountered in

earlier collecting, and numerous rodents), notoungulates (the extinct, endemic South American hoofed plant eaters), and sloths and armadillos. Some currently unidentified specimens are small, with bulbous low-crowned teeth, but we are assuming for now that they are NOT monkeys.

The crew enjoyed excellent hiking and climbing, plenty of rice and beans (occasionally washed down with fine boxed-wine), spectacular vistas, "fresh-from-the-stream" mountain water (the filters clogged early with glacier-derived debris), and helicopter transport to remote regions. Most logistics went very well, but they unpredictably gained experience in dusk-time use of quickly-collected sticks and rapidly-poured gasoline to generate a signal flare for errant helicopter pilots. While in Chile the crew saw the telecast of a fifteen minute Chilean television broadcast on the field project that included filming taped at The Field Museum in the Geology prep lab and interviews with John Flynn.

MUSEUM ACQUIRES NEW METEORITE

Meenakshi Wadhwa (Geology) coordinated the joint purchase of a significant new meteorite, in conjunction with the Smithsonian Institution and the UCLA Institute of Geophysics and Planetary Physics. The Lamont meteorite is a new, previously unknown example of a stony-iron mesosiderite, an extremely rare group. Stony-iron mesosiderites are believed to represent the core-mantle boundaries of their parent bodies, and promise to reveal much about processes and time scales of differentiation in the early solar system. The Lamont meteorite will be an important addition to The Field Museum's collection. The eighty-three pound specimen was discovered in a Kansas field, and The Field Museum will receive a portion weighing between eight and ten pounds. The farmer who discovered the specimen was pleased to learn that a portion of his find will remain in the Midwest at The Field Museum.

The *Natural News* is edited by **Carolyn Klyce** in the President's Office. The deadline for all submissions is Tuesday at noon. Printed on recycled paper.

STOTZ AND SCHULENBERG HELP DETERMINE GLOBAL HOT SPOTS

Doug Stotz and **Tom Schulenberg** (both of the Office of Environmental and Conservation Programs) recently participated in a three-day meeting at Conservation International in Washington, D.C. to help refine the "HOT SPOTS" concept developed by world-renowned conservationist, Norman Myers. In 1988 Myers advocated focusing conservation attention on the small areas in the world -- the "HOT SPOTS" -- where both the diversity of endemics (the plants and animals that exist only in that region) and the threat from habitat destruction were very high. Myers, who was also present at the Washington meeting, originally used plant endemism to locate the "HOT SPOTS." At the March meeting, the range of taxa used to define the global HOT SPOTS was expanded to include also birds and mammals (plans were made to develop databases in the future with the necessary information for reptiles and amphibians, and also for some groups of insects). The vast tropical field experience of Stotz and Schulenberg, along with an extensive computer database on the birds of the American tropics -- developed and assembled by Stotz and colleagues, and that includes data from the Field Museum's collections -- helped identify the fifteen tropical regions worldwide classified of "highest conservation priority." Included among these HOT SPOTS are the humid tropical forests of the Andes, the humid forests of Central America, the deciduous and moist forests of Western Ecuador, the Atlantic Forest, the West Indian forests, and the forests of the Philippines, Indonesia, and the East African mountains. Five additional areas qualified as HOT SPOTS based on their richness of endemic species, but these currently face relatively low levels of threat. These five regions of high conservation priority include the lowland forests of the upper Amazon river, the Guianan-Tepui region of northeastern South America, the wet Chocó forests of western Colombia, the Zaire basin, and the forests of New Guinea. These regions represent the rare remaining opportunities for conserving functional ecosystems in a large wilderness setting.

"CHAIN REACTION" MOVIE FILMING WILL CAUSE WEST LOT PARKING RESTRICTIONS ON MONDAY, APRIL 1

To: All Field Museum Employees

The filming of the movie "Chain Reaction " will resume on Monday , April 1. A major portion of the shooting will take place at the South entrance, the shipping dock and McFetridge Drive between the Museum and the Park District building, and film equipment will be set up in the west lot driveway and near shipping. It will thus be necessary to restrict parking in the West Lot all day Monday, April 1. Persons who normally park in the West Lot will be given free parking in the Soldier Field lot. (McFetridge Drive will also be closed to parking.)

A Security Officer will be at the West Lot entrance to issue complimentary passes to persons before entering. Merely make a "U" turn and go to the Soldier Field lot. We have been given the same number of passes as there are spaces in the lot. Once the passes are gone, anyone coming in will have to find other parking, such as in the North Lot or Soldier Field. Evening Shift staff will have to park in the North lot as well.

Handicap parking will still be available in the West Lot, and School busses and delivery vehicles may make drop-offs.

RAP AIRS ON BBC

BBC television aired a program in February on the biodiversity crisis that showcased the joint Field Museum/Conservation International Rapid Assessment Program (RAP). The BBC-Horizon's television program, "Nature's Numbers," investigated the validity of the growing concern that tropical deforestation is leading to a major extinction event, which could forever eliminate a large fraction of the world's diverse plants and animals. Along with their RAP team colleagues, Environmental and Conservation Programs' **Doug Stotz** and **Robin Foster** were filmed and interviewed in the forests and grasslands of northeastern Bolivia, where they were leading a RAP-training course. The on-the-ground, practical conservation efforts of the RAP team provided the backdrop to theoretical discussions on the existence of an extinction crisis, the number of species involved, and the need (or not) for action that could prevent major extinctions from occurring. The RAP course filmed in Bolivia provided training for local biologists. They studied rapid field techniques for inventorying and monitoring biological diversity and also learned how to apply these results for conservation action. The final report from this course, conducted at the "Parque Nacional Noel Kempf Mercado," will be used by Bolivian organizations to assist with the development of a long-term management plan for the park.

OLSON'S PROPOSAL FUNDED BY NSF

Link Olson (Mammals) just learned that his dissertation improvement proposal "The effect of metabolic rate on mitochondrial DNA evolution in the Tenrecidae (Insectivora: Mammalia)" has just been funded by NSF. The work will take place in the Museum's Biochemistry Lab and on recent mammal collections made by **Steve Goodman** in Madagascar.

NOON BALLOON

The Noon Balloon presentation for Tuesday, March 26, 1996 was delivered by **Barry Chernoff,** Associate Curator, Fishes, and Chair, Department of Zoology. Barry positively resolved one of the more nettlesome, longstanding questions in population biology: "Can one distinguish between differences resulting from primary differentiation along a cline and differences due to secondary contact and hybridization for well differentiated parental populations?". Two large data sets, involving more than 900 individuals each, were developed. One used the stone crabs, *Menippe adina* and *M. mercenaria* and their hybrids ranging along the Gulf Coast from Texas to the tip of Florida. The other used the fish *Menidia beryllina* from a 1000km region of the Mississippi Valley. Barry assessed the degree of morphological integration for each using techniques of principal components analyses, and then drawing from continuum mechanics he showed transformations along a primary cline require less strain energy than along an hybridization zone.

CENTER FOR CULTURAL UNDERSTANDING AND CHANGE

Janice Klein, Anthropology, received a grant from the National Endowment for the Arts to attend the American Law Institute-American Bar Association (ALI-ABA) Course of Study, "Legal Problems of Museum Administration" in Pittsburgh from March 26-29.

VOICE MAIL IS ALMOST FULL!

Please help Ms. Meridian by cleaning your message box. If you plan to be on vacation, please ask someone to check and erase your messages daily. When the voice mail system reaches capacity, it stops accepting messages for everyone, not just you!

OF CELLS, CYBERSPACE AND SANDY: OPEN HOUSES BREAK ATTENDANCE RECORDS!!!

The Open House Committee extends its warmest appreciation to the Biochemistry Labs, Computer Services, and the President's office for hosting the two most recent open houses. Over eighty staff members, volunteers, and students attended the Biochemistry and Computer Services Open House on Feb. 28, where they received a mega-byte size overview of the Computing facility, and a fascinating introduction to the world of DNA (in addition to a mouth-watering array of danish and donuts); special thanks to **Jim Koeppl** (Computing), **Shannon Hackett** (Birds/Biochem Lab) and **Bill Ballard** (Insects/Biochem Lab) for a terrific event. Attendance at the President's open house on March 21 hit an all-time high of 100-plus. Attendees were treated to a delightful conversation with **Sandy Boyd** in which he shared his insights on the job of a museum president, and some background on the history of those beautiful oriental rugs. Many thanks to all involved -- stay tuned for the next not-to-be-missed open house!

Fom the family of **Joe Halik:** For your kindness and sympathy when times are hard to bear, we thank you for the comfort that comes from those who share. The floral arrangment was beautiful and greatly appreciated.

Our thoughts are with **Dahao Wang** (Computing) and his family as his wife recovers from serious injuries sustained in a bad car accident.

Welcome!

Sarah Highstone joined the Development Department on March 25 as the Coordinator of the Friends Groups. She will staff the Friends of the Field Museum Library, the Collections Committee and the annual fund for our donor groups.

Sarah comes to the Museum with fund-raising experience as Associate, Alumni and Development, at Elgin Academy and Admissions Ambassador Coordinator at Barat College, from which she graduated last year. We welcome Sarah to the Development Department and The Field Museum. Sarah can be reached at ext. 874.

LAKE SHORE DRIVE RELOCATION

Enclosed in this issue is Memo #6 on the Lake Shore Drive Relocation.

This memo includes a diagram of the *access route between the Museum and Michigan Avenue and the train.* Signage for this access will not be up for another week. We apologize for not printing this memo earlier.

ATTENTION ALL STAFF!

Due to the staff holiday, April 5, 1996 (Good Friday), Payroll *must* receive all timesheets on ***Thursday, April 4, 1996 by 12 noon.*** Thank you for your cooperation in this matter. Have a happy holiday!

-- Payroll/Personnel Department

Mike Paha has an installation, *RunOff*, in the window of Barney's at Oak and Rush Streets. It will be up until April 10. Stop by!